

HESA

thermally insulated substations with energy storage for Smart Grid



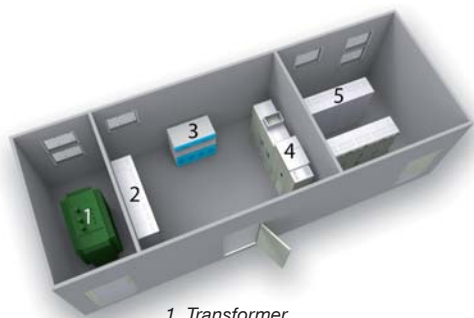
HESA thermally insulated substations with energy storage are constructed of rigid steel elements and designed for use as power distribution and low voltage energy management points in industrial applications as well as substations in the power grid. The housing typically contains medium and low voltage switchgear, AC/DC power conversion switchgear, Lithium ion batteries with battery management system for electrical energy storing and supply, an internal power supply, telemetry equipment and a power transformer. Each substation is designed to match the application specific requirements.

ADVANTAGES

- prefabricated and tested at the manufacturing location
- walk-in type substation
- thermally insulated
- easy to install, use and service - "plug and play"

APPLICATIONS

- Peak Power Shaving Application
Demand management in which the load for the utilities is reduced by utilizing battery capacity
- Energy Storage Application
Excess renewable generation is stored into batteries and utilized at off-generation periods
- Energy Management Application
Management of demand and renewable generation at low voltage side to smoothen loads for utilities by utilizing battery capacity



1. Transformer
 2. LV switchgear
 3. MV switchgear
 4. AC/DC power conversion switchgear
 5. Li-ion battery modules
- Dimensions of substation vary with distribution side and battery capacity*

TRANSPORT AND INSTALLATION

The enclosure is equipped with loops for lifting and can be moved with the equipment inside. Should the transformer already be installed, please contact the manufacturer for consultation. The type of concrete base and the method of mounting should also follow installation guidelines. Each substation comes complete with installation and user manuals.

TESTS AND STANDARDS

The substation enclosure has been designed according to the European directive: EN62271-202 High current installations with a rated voltage of over 1 kV. All switchgears are tested according to applicable standards.

